**Homework 50** Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

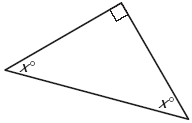
**Third Angle Theorem** Period:\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Failure to show all work and write in complete sentences will result in LaSalle!**

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| In the diagram, Δ*EFG* ≅ Δ*OPQ.* Complete the statement.   1. ≅ \_\_\_\_\_   *EF*   1. ∠*P* ≅ \_\_\_\_\_ 2. ∠*G* ≅ \_\_\_\_\_ 3. *m*∠*O* = \_\_\_\_\_ 4. *QO* = \_\_\_\_\_ 5. Δ*GFE* ≅ \_\_\_\_\_ | |
| 7. Find the value of x and y. | 8. Given Δ*HJK* ≅ Δ *TRS*, find the values of *a* and *b*. |
| 9. Graph the triangle with vertices *A*(1, 2), *B*(1, 2), and *C*(5, 4). Then graph a triangle congruent to Δ*ABC* **with different coordinates.** | 10. Write a congruence statement for the following figures.  a)    b) |

**Mixed Review**

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| 1) What values of x would make the following equation true? | 2) Simplify: |
| 3) What are the values that would make the following expression undefined? | 4) What is the distance between the following two points? |
| 5) An equation of a line in the (x, y) coordinate plane is given as:     1. What is the slope of this line? 2. At what point (x, y) will this line cross the x-axis? 3. At what point (x, y) will this line cross the y-axis? | 6) The points (4, 6) and (9, 10) are on line *a*. Find the equation for the line that is parallel to line *a* and passes through point (0, 4). |
| 7) Simplify: | 8) If , then x =? |

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